

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1-149. (Cancelled)

150. (Currently Amended) A method of treating a patient susceptible to tachycardia, the method comprising:

implanting a device having a housing and containing circuitry for sensing and treating tachycardia, the circuitry configured to provide a constant current output signal; and

implanting at least one electrode coupled to the device for use in sensing or treating cardiac function of the patient;

wherein the at least one electrode is implanted to be non-vascular and non-cardiac, and wherein the device further includes a device electrode disposed on or making up part of the housing; and

treating tachycardia by forcing a constant current signal to pass through patient tissue between the device electrode and another implanted non-vascular and non-cardiac electrode.

151-152. (Cancelled)

153. (Currently Amended) The method of claim 150, further comprising: A method of treating a patient susceptible to tachycardia, the method comprising:

implanting a device having a housing and containing circuitry for sensing and treating tachycardia, the circuitry configured to provide a constant current output signal;

implanting at least one electrode coupled to the device for use in sensing or treating cardiac function of the patient, wherein the at least one electrode is implanted to be non-vascular and non-cardiac;

sensing a portion of the patient's cardiac cycle;

categorizing the patient's cardiac cycle as acceptable or abnormal; and

if the cardiac cycle rhythm is abnormal, generating a constant current electric signal to treat the abnormal cardiac cycle, the constant current electric signal generated between implanted non-vascular and non-cardiac electrodes.

154. (Previously Presented) The method of claim 150, wherein the circuitry is adapted to provide two constant current electric signals in a biphasic waveform.

155. (Currently Amended) The method of claim 150, wherein the step of treating tachycardia includes further comprising generating a monophasic constant current signal.

156. (Currently Amended) The method of claim 150, wherein the step of treating tachycardia includes further comprising generating first and second constant current electric signals of opposing signs in a biphasic waveform.

157. (Currently Amended) A method of alleviating tachycardia for a patient, the method comprising:

implanting a device adapted to provide a constant current signal into the patient;

providing a lead system having one or more electrodes for the device, the lead system provided such that it is disposed internally to the patient without contacting the patient's heart;

sensing an abnormality in the patient's cardiac rhythm using electrodes disposed internally to the patient but not contacting the patient's heart, at least one of the electrodes being part of the lead system; and

discharging a constant current signal from the device to the [[patient.]] patient,

wherein the step of discharging the constant current signal is performed using two electrodes as anode and cathode, wherein a line drawn from the anode to the cathode would intersect the heart, and wherein the anode and cathode are both disposed outside of the heart.

158. (Previously Presented) The method of claim 157, wherein the lead system is provided such that it does not reside in the patient's vasculature.

159. (Previously Presented) The method of claim 157, wherein the step of sensing an abnormality in the patient's cardiac rhythm makes use only of electrodes disposed outside of the patient's heart and vasculature.

160-161. (Cancelled)

162. (Currently Amended) The method of claim 157 ~~claim 160~~, wherein the anode and cathode are on opposing sides of the heart.

163. (Previously Presented) The method of claim 157, wherein the device and the lead system for the device are disposed in the patient such that electrodes in the lead system consist of electrodes disposed outside of the patient's heart and vasculature.

164. (Currently Amended) A method of treating tachycardia comprising:
implanting a device in a patient, the device having a housing including an electrode, the device also containing circuitry for sensing and treating tachycardia and generating a constant current signal; and
implanting at least one electrode coupled to the device for use in sensing or treating cardiac function of the patient;
treating tachycardia by generating a constant current signal between the device electrode and another electrode coupled to the device;
wherein all electrodes coupled to the device are disposed outside of the patient's vasculature and exclusive of the patient's heart[[;]] .

165. (Previously Presented) The method of claim 164, further comprising:
sensing a portion of the patient's cardiac rhythm; and
categorizing the patient's cardiac rhythm as acceptable or abnormal; wherein the step of treating tachycardia is performed when the patient's cardiac rhythm is abnormal.